REMARKS

The Office Action dated November 15, 2005 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 19-30 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 2, claims 19-30 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. patent No. 6,393,007 to Haartsen et al. ("Haartsen") in view of U.S. Patent No. 5,455,962 to Kotzin et al. ("Kotzin") and further in view of "Channel Assignment Schemes for Cellular Mobile Telecommunication Systems: A Comprehensive Survey" to Katzela et al. ("Katzela"). The Office Action took the position that Haartsen, Kotzin, and Katzela disclose all the aspects of claims 19-30. The rejection is traversed and reconsideration is requested.

Independent claim 19, upon which claims 21-25 are dependent, recites a method for data transmission in a cellular telecommunication system, in which system data are transmitted in units of bursts, each burst occupying a time slot (TS[j]) of one of consecutive frames (F[i]), each respective frame comprising a predetermined number n of time slots, within a each time slot (TS[j]) of each frame (F[i]), data can be transmitted between a first transceiver device and a respective one of a plurality of second transceiver devices either in a first transmission direction from said first transceiver device to said respective second transceiver device or in a second transmission direction from said

respective second transceiver device to said first transceiver device opposite to a transmission direction in another time slot of the same frame (F[i]) in which data is transmitted between said first transceiver device and another one of said second transceiver devices. In addition, transmission in said first direction occurs in predetermined and fixed time slots (TS[j]) in each of consecutive frames (F[i], F[i+1]), and transmission in said second direction occurs in different time slots (Ts[k], Ts[l]) in each of consecutive frames (F[i], F[i+1]). In said second direction (UL), during a first frame (F[i]) of consecutive frames respective second transceiver devices perform transmission to said first transceiver device during a kth time slot (TS[k]) assigned thereto for transmission, and during a subsequent second frame (F[i+1]) of said consecutive frames, and respective second transceiver devices perform transmission to said first transceiver device during a different lth time slot (TS[l]) assigned thereto for transmission, with $0 \leq k, l \leq n-1$ and $k \neq l$.

Independent claim 20, upon which claims 21-25 are dependent, recites a method for data transmission in a cellular telecommunication system, in which system data are transmitted in units of bursts, each burst occupying a time slot (TS[j]) of one of consecutive frames (F[i]), each respective frame comprising a predetermined number n of time slots, wherein within a each time slot (TS[j]) of each frame (F[i]), data can be transmitted between a first transceiver device and a respective one of a plurality of second transceiver devices either in a first transmission direction from said first transceiver device to said respective second transceiver device or in a second

transmission direction from said respective second transceiver device to said first transceiver device opposite to a transmission direction in another time slot of the same frame (F[i]) in which data is transmitted between said first transceiver device and another one of said second transceiver devices. Further, transmission in said first direction occurs in different time slots (Ts[k], Ts[l]) in each of consecutive frames (F[i], F[i+1]), and transmission in said second direction occurs in predetermined and fixed time slots (TS[j]) in each of consecutive frames (F[i], F[i+1]). In said first direction during a first frame (F[i]) of consecutive frames respective first transceiver devices perform transmission to said second transceiver device during a kth time slot (TS[k]) assigned thereto for transmission, and during a subsequent second frame (F[i+1]) of said consecutive frames, respective first transceiver devices perform transmission to said second transceiver device during a different lth time slot (TS[l]) assigned thereto for transmission, with $0 \leq k, l \leq n-1$ and $k \neq l$.

As will be discussed below, the cited prior art of Haartsen, Kotzin, and Katzela fail to disclose or suggest the elements of any of the presently pending claims.

Haartsen generally describes in FIG. 3 an effect of time hopping applied to a TDMA/TDD transmission scheme. FIG. 3 shows two subsequent TDMA/TDD frames, indicated hop (k) and hop (k+1), respectively. See column 7, lines 51-57. However, according to Haartsen, by applying time hopping, there is a severe risk that the return channel becomes available before all the data in a frame have been transferred, such that acknowledgement within the same frame is not possible.

Thus, Haartsen would appear to teach away from the recitations of the presently claimed application. Haartsen is silent as to teaching or suggesting, at least, "transmission in said first direction occurs in predetermined and fixed time slots (TS[j]) in each of consecutive frames (F[i], F[i+1]), and transmission in said second direction occurs in different time slots (Ts[k], Ts[l]) in each of consecutive frames (F[i], F[i+1])," as recited in independent claims 19 and 20. To cure the deficiencies of Haartsen, the Office Action relies on Kotzin and Katzela as teaching the recitations of the transmission as recited in independent claims 19 and 20.

However, similarly to Haartsen, Kotzin and Katzela is devoid of any teaching or suggestion of the particular data transmission sequence recited in independent claims 19 and 20. Kotzin simply describes a cellular communication system in which communication signals are exchanged on an indexed uplink communication resource and a non-indexed downlink communication resource. See Abstract. In column 2, lines 50-60, Kotzin describes that it is necessary for GSM, that the downlink frequency of the primary radio channel for each BTS be non-hopping. For the uplink direction, in Kotzin, a frequency hopping is allowed. However, Kotzin describes a frequency hopping. In contrast, independent claims 19 and 20 are directed to time hopping methods.

Because there are significant differences between time hopping and frequency hopping, a person of ordinary skill in the art would not be motivated to combine the description provided in Kotzin into Haartsen to arrive to the claimed recitations of independent claims 19 and 20.

Furthermore, Katzela generally provides different channel allocation schemes as described on page 10, right column. In particular, on page 10, Katzela describes several schemes, namely, frequency division, time division, or code divisions. On page 11, right column, Katzela describes a fixed channel allocation (FCA) and on page 15, Katzela describes a dynamic channel allocation (DCA). Also, on page 21 of Katzela, a hybrid channel allocation (HCA) is described in which both, a fixed channel allocation and a dynamic channel allocation are used. On page 22, right column, Katzela describes a fixed and dynamic channel allocations are described. However, Katzela describes a fixed channel allocation or the dynamic channel allocation is applied depending on the network condition (for instance, see Table 12 and page 21).

Thus, in view of the foregoing, a combination of Haartsen, Kotzin, and Katzela would fail to teach or suggest all the recitations of independent claims 19 and 20. The combination of Haartsen, Kotzin, and Katzela do not teach or suggest, "transmission in said first direction occurs in **predetermined and fixed time slots** (TS[j]) in each of consecutive frames (F[i], F[i+1]), and transmission in said second direction occurs in different time slots (Ts[k], Ts[l]) in each of consecutive frames (F[i], F[i+1])," emphasis added, as recited in independent claim 19.

Applicants respectfully further assert that the combination of Haartsen, Kotzin, and Katzela fail to teach or suggest, "transmission in said first direction occurs **in predetermined and fixed time slots** (TS[j]) in **each of consecutive frames** (F[i], F[i+1])," emphasis added, as recited in independent claim 19. Haartson, Kotzin, and

Katzela are devoid of any teaching or suggestion pertaining to the transmission in the first direction as recited in independent claim 19. Thus, a combination of Haartson and Scott would not provide for all of the recitations of independent claim 19.

It appears that, in order to arrive to the recitations of the presently claimed invention, the Office Action is improperly rejecting the claims using hindsight by attempting to modify Haartsen and Scott using the teachings of the present invention to then arrive to the claimed features of the claims. If a person skilled in the art combines the descriptions of Haartsen and Scott, the combination thereof would not provide the recitations of independent claim 19. Because Scott does not show the specific recitations of independent claim 19, Scott cannot modify Haartsen such that a combination thereof would arrive to the subject matter of independent claim 19.

Accordingly, in view of the foregoing, it is respectfully requested that the rejection to the claims be withdrawn and the independent claim 19 and related dependent claims be allowed.

Independent claim 20 recites, "...transmission in said first direction occurs in different time slots (Ts[k], Ts[l]) in each of consecutive frames (F[i], F[i+1]), and transmission in said second direction occurs in predetermined and fixed time slots (TS[j]) in each of consecutive frames (F[i], F[i+1]), wherein in said first direction during a first frame (F[i]) of consecutive frames respective first transceiver devices perform transmission to said second transceiver device during a k^{th} time slot (TS[k]) assigned thereto for transmission, and during a subsequent second frame (F[i+1]) of said

consecutive frames, respective first transceiver devices perform transmission to said second transceiver device during a different l^{th} time slot (TS[l]) assigned thereto for transmission, with $0 \leq k, l \leq n-1$ and $k \neq l$." Because independent claim 20 includes similar claim features as those recited in independent claim 19, although of different scope, and because the Office Action refers to similar portions of the cited references to reject independent claims 19 and 20, the arguments presented above supporting the patentability of independent claim 19 are incorporated herein to support the patentability of independent claim 20.

Accordingly, in view of the foregoing, it is respectfully requested that the rejection to the claims be withdrawn and the independent claims 19 and 20 and related dependent claims be allowed.

CONCLUSION:

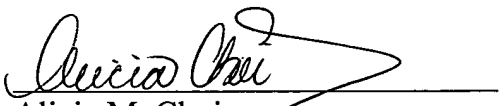
In view of the above, applicant respectfully submits that the claimed invention recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicant further submits that the subject matter is more than sufficient to render the claimed invention unobvious to a person of skill in the art. Applicant therefore respectfully requests that each of claims 19-30 be found allowable and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Petition for Extension of Time
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